

son dart frogs, treehoppers), adaptations of arboreal animals, and pollination and dispersal in the forest.

The last two chapters—conservation and traveling precautions—make this book especially useful and timely.

My recommendation is: Buy this book and read it in depth, book a tropical ecotour, then buy some good field guides for that specific region actually to take with you. And, as the author says, “Buon viaggio!”—Roger W. Sanders, Associate Collections Manager, Botanical Research Institute of Texas, Fort Worth, TX 76102-4060, U.S.A.

DAVID BIEK. 2000. **Flora of Mount Rainier National Park**. (ISBN 0-87071-470-8, pbk.) Oregon State University Press. 101 Waldo Hall, Corvallis, OR 97331-6407. (Orders: <http://osu.orst.edu/dept/press/osupress.htm>, 800-426-3797, 541-737-3166, 541-737-3170 fax). \$29.95, 520 pp, 64 color photos, line drawings, 6" × 9".

This publication marks the first comprehensive treatment of the flora of Mount Rainier subsequent to George Neville Jones' work published in 1938. Mount Rainier was designated a National Park in 1899 and since then much information has been gathered on the biota of the area. The *Flora of Mount Rainier National Park* by David Biek seeks to update Jones' earlier flora and covers the entire area within the boundaries of the park. According to the author, the goal of this book is “to provide a complete list of the native and introduced plants found in the Park, with keys and descriptions sufficient to distinguish each species from the others.”

The volume begins with an introduction on how to use the book and clarifies its scope and intent. The author provides information on how to use the keys to identify plants and forewarns his readers of the inconstant nature of scientific names of plants. Next, facts on the Park, including location, topography and climate are given. The author follows with a discussion of plant communities and associations, citing 19 different types present in the Park and the groups of plants that can be found growing in each zone or community. A brief discussion of plant geography, distribution, weeds and rare plants allow the reader to become familiar with the flora of the Park. Last, a historical overview of explorations and studies, including ecological research on Mount Rainier, gives evidence of the long significance this area has had in our national heritage.

Of course, a majority of the book is dedicated to plants included in the flora and the treatment begins with a key to the major groups of vascular plants. After this key, the major groups are presented, fern and fern allies first, followed by gymnosperms, then dicots and finally monocots. Within each group, the families are listed alphabetically, followed by genera and species. There is a key to accompany each family and genus description so the reader can ascertain the taxon at hand. Species descriptions include scientific name and common name, a brief description of diagnostic characters, elevation, habit and habitat, as well as locations where it has been collected in the Park. Illustrations, reprinted from Hitchcock's *Vascular Plants of the Pacific Northwest*, are adjacent to most species descriptions. Color photos of selected species are found in the middle of the book. An appendix includes 79 plants added to the flora, which were observed by the author in the field or from herbarium specimens between 1996 and 1999. A brief glossary clarifies some essential terms and the bibliography cites critical publications. The author provides a single index with accepted names, synonyms, names misapplied and common names used in the book.

Although it is very convenient to have illustrations directly adjacent to the species descriptions, the limited margin results in a small space for inadequate illustration printing. The effect for



some of the illustrations is a print too small to be useful. For example, the illustration for *Pseudotsuga menziesii* includes a cross section of both leaf and stem. Both of these figures are too small to be useful to a reader. Likewise, an illustration of a branch of *Tsuga heterophylla* is so small it is hard to identify the ovulate cones. Perhaps it would have been more useful had the author provided the illustrations in a separate section following the species descriptions that cross-referenced them. The color photos in the middle of the book would be more valuable if scale bars or another unit of measure were included. As the plates are presented, the reader has no frame of reference for how large or small each plant is in the photo. Moreover, it would have been useful to identify each photo with some sort of letter or number so as to be easily cross-referenced with the caption. The discussion on forest communities of Mount Rainier proves a bit confusing. Following the forest classification of another author, Biek states that there are four different forest zones within the Park. These zones are further divided into 19 associations, seven of which have two or more phases. An attempt is made to identify plants commonly growing in each zone, but clearly the distribution and limits of these forests are dependent on innumerable factors, including annual precipitation, disturbance, elevation and temperature. From reading this discussion, it seems likely that many of the communities listed herein are intertwined and thus difficult to classify.

The book has some handy features that are rather noteworthy. Most keys are written with a minimal amount of technical terminology, making them accessible to those with limited botanical knowledge. The author has provided a map of the Park on the inside cover for quick reference to its readers. In addition, a metric ruler provided on the back cover proves convenient when keying out a specimen in the field.

Without doubt, this book is an important update to the knowledge of the flora of Mount Rainier. Those who enjoy the flora of this area would certainly benefit by purchasing a copy of this book, which should prove a worthy and practical field tool. This is a must-have for amateur and professional botanists who enjoy the Northwest United States.—Amy Trauth Nare, *Botanical Research Institute of Texas, Fort Worth, TX 76102-4060, U.S.A. amy\_trauth@yahoo.com*

DONALD H. MANSFIELD. 2000. **Flora of Steens Mountain.** (ISBN 0-87071-471-6, pbk.) Oregon State University Press. 101 Waldo Hall, Corvallis, OR 97331-6407. (Orders: <http://osu.orst.edu/dept/press/osupress.htm>, 800-426-3797, 541-737-3166, 541-737-3170 fax). \$29.95, 424 pp, 64 color photos, line drawings, 6" × 9".

According to the Mansfield, the flora of Steens Mountain, Oregon includes "all of Steens Mountain from Long Hollow near Fields to Riddle Mountain east of Diamond, the entire Alvord Basin, the Pueblo Valley, Catlow Rim and the eastern edge of Catlow Valley, Diamond Craters, and the Malheur Marsh." The author also claims this book would be useful for the surrounding Pueblo Mountains and Harney Basin as well as most of southeastern Oregon, southwestern Idaho, and northern Nevada. Indeed, this publication would provide a useful tool for those interested in the flora of the northwestern United States.

The book's introduction begins with a discussion on how it is organized, specifics on the geographic region covered and more detailed information on Steens Mountain and surrounding areas. A short geologic and biogeographic history of Steens follows, then a floristic overview of Steens Mountain and an explanation of vegetation zones and plant communities. Mansfield provides an interesting discussion on what makes a plant rare, followed by a listing of some rare plants of Steens. Next, a brief history of botanical exploration on Steens is given, as well as information on how to use the